

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A hollow microparticle comprising a hollow portion and a high-density polymer brush layer enclosing the hollow portion

wherein the polymer chain composing the polymer brush layer is a block copolymer of at least one crosslinkable monomer having a crosslinkable functional group and a non-crosslinkable monomer,

blocks of the crosslinkable monomer are located innermost of the polymer brush layer, and

crosslinkable monomer blocks in a polymer chain and the crosslinkable monomer blocks in a discrete polymer chain are crosslinked via a linkage formed by reaction between the crosslinkable functional groups or via a linkage formed by reaction between the crosslinkable functional groups and a polyfunctional compound.

**2. (Original)** The hollow microparticle according to Claim 1, wherein the density of chains composing the polymer brush layer is 0.4 to 1.2 chains/nm<sup>2</sup>.

**3-4. (Cancelled)**

**5. (Original)** The hollow microparticle according to Claim 2, wherein the molecular weight distribution index of each block of the polymer chain is from 1 to 1.50.

**6. (Original)** The hollow microparticle according to Claim 3, wherein the degree of polymerization of the crosslinkable monomer block is from 10 to 10000, and the degree of polymerization of the non-crosslinkable monomer block is from 10 to 10000.

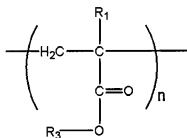
**7. (Original)** The hollow microparticle according to Claim 1, which has a particle size of from 60 nm to 5  $\mu$ m.

**8. (Original)** A hollow microparticle comprising a hollow portion and a high-density polymer brush layer enclosing the hollow portion, wherein a polymer chain composing the polymer brush

layer is a block copolymer of:

i) a crosslinkable monomer block located at inner part of the polymer brush layer, which is represented by the formula:

[Formula 53]

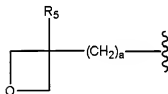


wherein

R<sub>1</sub> is a hydrogen atom or a C<sub>1</sub> to C<sub>6</sub> alkyl group,

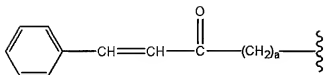
R<sub>3</sub> is a crosslinkable functional group represent by the formula:

[Formula 54]



or

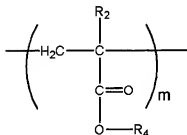
[Formula 55]



wherein  $\text{R}_5$  is a hydrogen atom or a  $\text{C}_1$  to  $\text{C}_6$  alkyl group, and  $a$  is an integer of from 1 to 3, and  $n$  is from 10 to 10000; and

ii) a non-crosslinkable monomer block located at outer part of the polymer brush layer, which is represented by the formula:

[Formula 56]



wherein

$\text{R}_2$  is a hydrogen atom or a  $\text{C}_1$  to  $\text{C}_6$  alkyl group,

$\text{R}_4$  is a hydrogen atom, a  $\text{C}_1$  to  $\text{C}_{12}$  alkyl group or a phenyl group,

and

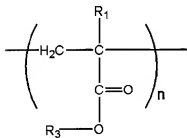
m is from 10 to 10000; and

wherein crosslinkable monomer blocks in a polymer chain and the crosslinkable monomer blocks in a discrete polymer chain are crosslinked via a linkage formed by reaction between the crosslinkable functional groups.

**9. (Previously presented)** A hollow microparticle comprising a hollow portion and a high-density polymer brush layer enclosing the hollow portion, wherein a polymer chain composing the polymer brush layer is a block copolymer of:

i) a crosslinkable monomer block located at inner part of the polymer brush layer, which is represented by the formula:

[Formula 57]

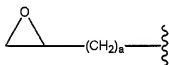


wherein

$R_1$  is a hydrogen atom or a  $C_1$  to  $C_6$  alkyl group,

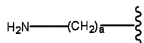
$R_3$  is a hydrogen atom or a crosslinkable functional radical represented by the formula:

[Formula 58]



or

[Formula 59]

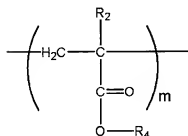


wherein  $a$  is an integer of from 1 to 3, and

$n$  is from 10 to 10000; and

ii) a non-crosslinkable monomer block located at outer part of the polymer brush layer, which is represented by the formula:

[Formula 60]



wherein

$R_2$  is a hydrogen atom or a  $C_1$  to  $C_6$  alkyl group,

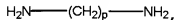
$R_4$  is a hydrogen atom, a  $C_1$  to  $C_{12}$  alkyl group or a phenyl group, and

$m$  is from 10 to 10000; and

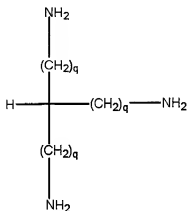
wherein crosslinkable monomer blocks in a polymer chain and the crosslinkable monomer blocks in a discrete polymer chain are crosslinked via a linkage formed by reaction between the crosslinkable functional group that is the carboxyl radical or the crosslinkable functional radical and a polyfunctional compound; and

wherein, if  $R_3$  is a hydrogen atom, the polyfunctional compound is represented by a formula selected from the group consisting of:

[Formula 61]

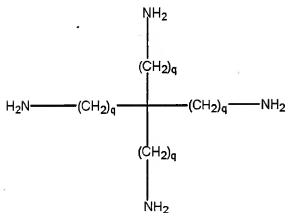


[Formula 62]



and

[Formula 63]

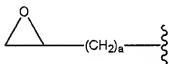


wherein p is an integer of from 1 to 6, and q is an integer of from 1 to 3;



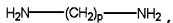
if  $R_3$  is a crosslinkable functional radical represented by the formula:

[Formula 64]

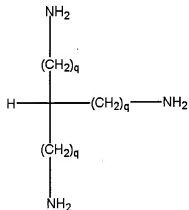


the polyfunctional compound is represented by a formula selected from the group consisting of:

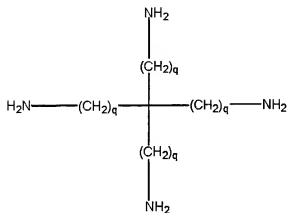
[Formula 65]



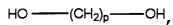
[Formula 66]



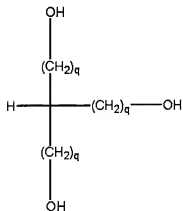
[Formula 67]



[Formula 68]

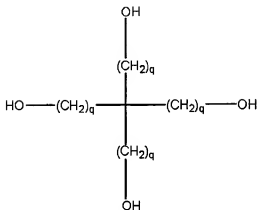


[Formula 69]



and

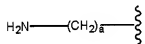
[Formula 70]



wherein p and q are as defined above; or

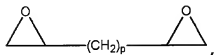
if R<sub>3</sub> is a crosslinkable functional radical represented by the formula:

[Formula 71]

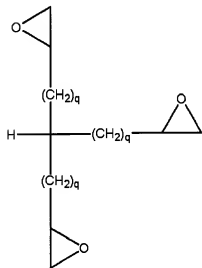


the polyfunctional compound is represented by a formula selected from the group consisting of:

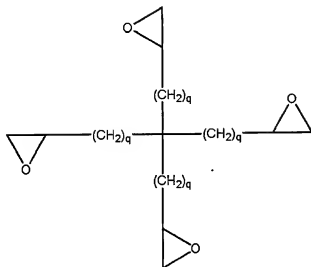
[Formula 72]



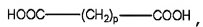
[Formula 73]



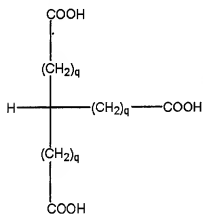
[Formula 74]



[Formula 75]

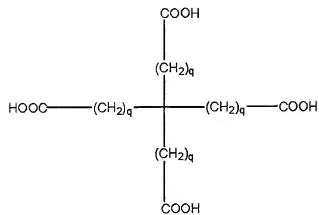


[Formula 76]



and

[Formula 77]



wherein p and q are as defined above.

10-15. (Cancelled)